

# Notice of Allowability

Application No.

10/070,918

Examiner

Shelley Self

Applicant(s)

DEBAILLEUL, GERARD

Art Unit

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/3/05.
2. ☒ The allowed claim(s) is/are 19-42.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

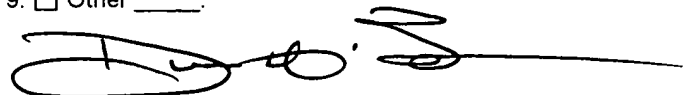
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



DERRIS H. BANKS  
SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 3700

## DETAILED ACTION

### *Response to Amendment*

The amendment filed on November 3, 2005 is sufficient to overcome the prior art reference.

### *Allowable Subject Matter*

Claims 19-42 are allowed.

The following is an examiner's statement of reasons for allowance: As noted in the previous Office Action (6/3/05), the prior art of record does not disclose or fairly suggest a plant for treating vulcanized rubber comprising a reactor causing deconsolidation of vulcanized-rubber waste into solid fragments of polymeric composition, a separating, *neutralizing* and *sorting device connected to the neutralizing device* in combination with the rest of the claimed limitations as set forth in claim 25.

Additionally, the prior art of record does not disclose or fairly suggest a process for treating vulcanized rubber waste comprising a molten pure base and neutralizing the deconsolidated sold fragments *wherein the neutralizing uses phosphoric acid* in combination with the rest of the claimed limitations as set forth in claim 35.

The prior art reference, Myers et al. (hereinafter referred to as Myers) discloses a rubber devulcanization process for handling used tires and rubber waste/scrap. Myers discloses rubber waste shredded/coarse cut to create a rubber crumb, metal/steel removed from the rubber waste, the crumb is dispersed in a solvent into a reaction vessel and an alkali metal (i.e. sodium) is

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added to the rubber crumb and solvent. The mixture is then stirred while being heated, heating is continued so as to devulcanize the rubber waste. The devulcanized rubber is subjected to a quenching step, water is injected into the mixture and stirred, thus sodium hydroxide (NaOH) results. A solvent/rubber polymer results after the quenching and if necessary cooling step. Carbon black is then filtered from the polymer, resulting in carbon black being recycled or reusable and a rubber polymer able to be used. Myers does not disclose the neutralizing device and sorting device. Instead Myers teaches that the quenching/neutralizing step is completed in the reactor, (i.e., water is injected into the sodium, crumb solvent, col. 4, lines 55-58). Further, Myers does not disclose a neutralizing using a dilute acid, *as phosphoric acid*. Accordingly, Myers fails to anticipate or render obvious the claimed invention as set forth in claims 25 and 35.

Neither the prior art of record nor any combination thereof discloses the claimed invention as set forth in claims 25 and 35. Therefore, claims 19-42 are deemed allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

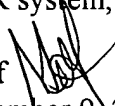
### ***Conclusion***

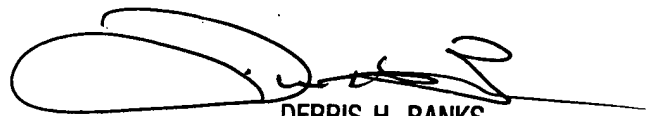
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelley Self whose telephone number is (571) 272-4524. The examiner can normally be reached Mon-Fri from 8:30am to 5:00pm. If attempts to reach the

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examiner by telephone are unsuccessful, the examiner's Supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on accessing the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSelf   
November 9, 2005

  
DERRIS H. BANKS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700